

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING "FLAG IN THE AIR" TO A PART-TIME TRAFFIC SIGNAL AT THE INTERSECTION OF US 40 ALTERNATE AND PARKSIDE BOULEVARD IN ALLEGANY COUNTY, MARYLAND. US 40 ALTERNATE IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

DURING NORMAL OPERATION, THE INTERSECTION WILL OPERATE IN A FLASHING MODE WITH THE US 40 ALTERNATE INDICATIONS FLASHING YELLOW AND THE PARKSIDE BOULEVARD INDICATIONS FLASHING RED. WHEN ACTIVATED, THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, SEMI-ACTUATED MODE WITH THE US 40 ALTERNATE APPROACHES OPERATING CONCURRENTLY AND THE PARKSIDE BOULEVARD APPROACH OPERATING ALONE.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE WEST LEG OF US 40 ALTERNATE.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS) WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET.

APS NOTES

APS WILL FUNCTION AS FOLLOWS:

1. US 40 ALTERNATE (NATIONAL HIGHWAY):

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE MESSAGE WILL BE "WAIT TO CROSS NATIONAL HIGHWAY".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

EQUIPMENT LIST "A"		
A. EQUIPMENT TO BE SUPPLIED BY THE SHA		
CATEGORY CODE	QUANTITY	DESCRIPTION
900000	1 EA.	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
971016	1 EA.	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET POLE MOUNT
973023	21 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH S1-1 BLK/FYG SIGN (36 IN. x 42 IN.) - POLE MOUNT

EQUIPMENT LIST "B"			
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR			
ITEM NO.	CATEGORY CODE	QUANTITY	DESCRIPTION
1001	100000	1 EA.	MAINTENANCE OF TRAFFIC
2002	203030	2 C.Y.	TEST PIT EXCAVATION
8001	800000	18 EA.	12 INCH LED TRAFFIC SIGNAL HEAD SECTION
8002	800000	1 EA.	2 WIRE CENTRAL CONTROL UNIT
8008	800000	1 EA.	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	800000	1 EA.	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	800000	1 EA.	INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE
8014	800000	2 EA.	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8018	800000	1 EA.	MAST ARM POLE & 70 FT MAST ARM ANY "T" DIMENSION
8022	800000	1 EA.	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNMENT
8027	800000	3 EA.	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8029	800000	30 L.F.	1 INCH GALVANIZED RISER
8036	800000	10 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8040	800000	21 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
8042	802501	110 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	807400	1 EA.	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8046	810010	45 L.F.	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG-THHN/THWN
8053	860292	1 EA.	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8055	861105	100 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	861107	210 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	861108	225 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8064	871201	1 EA.	INSTALL CONTROLLER AND CABINET - POLE MOUNT

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.02-04 (LANE SHIFT)

STANDARD NO. MD-104.02-14 (INTERSECTION FLAGGING)

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. GEORGE H. SMALL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
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MR. DAVID LARRICK
DISTRICT UTILITY ENGINEER
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MR. GEORGE FRANKENBERRY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
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MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM

WIRING KEY

A, B, C

VIDEO CAMERA DETECTION
LEAD-IN CABLE

D, E, F

7-CONDUCTOR ELECTRICAL
CABLE (NO. 14 A.W.G.)

G, H, J, K, L

5-CONDUCTOR ELECTRICAL
CABLE (NO. 14 A.W.G.)

M, N

2-CONDUCTOR ELECTRICAL
CABLE (NO. 14 A.W.G.)

O

STRANDED BARE COPPER
GROUND WIRE (NO. 6 A.W.G.)

P, Q, R

1-CONDUCTOR ELECTRICAL
CABLE (NO. 4 A.W.G.-THHN/THWN)

PE/PT

PROPOSED OVERHEAD ELECTRICAL
AND TELEPHONE SERVICE

+

- 3/4 IN. X 10 FT. GROUND ROD

WR&A

Whitman, Reardon and Associates, LLP
Engineers, Architects and Planners
801 South Carolina Street
Baltimore, Maryland 21231
410-235-3450

PHASE CHART

NORMAL OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK
PHASE 2 AND 6	G	G	G	G	R	R	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	R	R	DW	DW
PHASE 4	R	R	R	R	G	G	DW	DW
4 CHANGE	R	R	R	R	Y	Y	DW	DW
PHASE 4 ALT	R	R	R	R	G	G	WK	WK
PED CLEARANCE	R	R	R	R	G	G	FLDW	FLDW
4 CHANGE	R	R	R	R	Y	Y	DW	DW

TOD NO: AX142-16
SHA NO: AL881B51
US 40A@PARKSIDE BLVD

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 40 ALT. @ PARKSIDE BLVD.

REVISIONS

GENERAL INFORMATION SHEET

SCALE NONE DATE MARCH 2008 CONTRACT NO. AX1425185

DESIGNED BY JHR COUNTY ALLEGANY

DRAWN BY JHR LOGMILE 0140AL07.90

CHECKED BY NLM TMS NO. J032

F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 4112 A DRAWING TSP-4a OF 2 SHEET NO. 4a OF 2